

Title (en)  
IMPROVED XYLOSE UTILIZATION IN RECOMBINANT ZYMOMONAS HAVING INCREASED RIBOSE-5-PHOSPHATE ACTIVITY

Title (de)  
VERBESSERTE XYLOSEVERWENDUNG BEI REKOMBINANTEM ZYMOMONAS-STAMM MIT ERHÖHTER RIBOSE-5-PHOSPHATWIRKUNG

Title (fr)  
UTILISATION AMÉLIORÉE DE XYLOSE DANS DES ZYMOMONAS RECOMBINANTS AYANT UNE ACTIVITÉ RIBOSE-5-PHOSPHATE ISOMÉRISE ACCRUE

Publication  
**EP 2588606 B1 20150617 (EN)**

Application  
**EP 11736225 A 20110628**

Priority  
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• US 2011042122 W 20110628

Abstract (en)  
[origin: WO2012006061A1] Xylose-utilizing Zymomonas strains studied were found to accumulate ribulose when grown in xylose-containing media. Engineering these strains to increase ribose-5-phosphate isomerase activity led to reduced ribulose accumulation, improved growth, improved xylose utilization, and increased ethanol production.

IPC 8 full level  
**C12N 1/20** (2006.01); **C12N 1/21** (2006.01); **C12N 1/22** (2006.01); **C12N 9/90** (2006.01); **C12N 9/92** (2006.01); **C12P 7/06** (2006.01); **C12P 7/10** (2006.01)

CPC (source: EP US)  
**C12N 1/20** (2013.01 - EP US); **C12N 9/90** (2013.01 - EP US); **C12N 9/92** (2013.01 - EP US); **C12P 7/065** (2013.01 - EP US); **C12P 7/10** (2013.01 - EP US); **Y02E 50/10** (2013.01 - EP US)

Citation (examination)  
JOHANSSON BJORN ET AL: "The non-oxidative pentose phosphate pathway controls the fermentation rate of xylulose but not of xylose in saccharomyces cerevisiae TMB3001", FEMS YEAST RESEARCH, WILEY-BLACKWELL PUBLISHING LTD, GB, NL, vol. 2, 1 January 2002 (2002-01-01), pages 277 - 282, XP002966585, ISSN: 1567-1356, DOI: 10.1016/S1567-1356(02)00114-9

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